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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/494,877	01/31/2000	Zhigang Fang	34098/GTL/S61	4072

EXAMINER	
MCNELIS, KATHLEEN A	

ART UNIT	PAPER NUMBER
1742	

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SMITH INTERNATIONAL PATENT APPLICATIONS
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Advisory Action Before the Filing of an Appeal Brief	Application No. 09/494,877	Applicant(s) FANG ET AL.	
	Examiner Kathleen A. McNelis	Art Unit 1742	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 02 July 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: 1-5, 7, 11-21, 25-27, 29, 32-34, 37 and 41-44.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.
13. ☐ Other: _____.

Continuation of 3. NOTE: The amended limitation to claims 1, 14, 25, 33 and 43 deleting "selected from the group...carbides, nitrides, carbonitrides, and borides of W, Ti, Mo, Nb, V, Si, Hf, Ta, Cr and mixtures thereof" and adding the limitation "consisting essentially of tungsten carbide (WC)" changes the scope of the finally rejected claims and therefore requires additional consideration and/or search. The amended limitation to claim 43 requiring "a number of cores...essentially of tungsten carbide grains that are bonded together with...a binder alloy...the cores forming a first structural phase in the cermet composition; and a number of shells surrounding at least a portion of the cores, wherein the shells are formed from a binder material that is different from that of the binder alloy; the shells forming a second structural phase in the cermet composition; wherein the number of cores have a common orientation within the cermet composition" changes the scope of the finally rejected claims and therefore requires additional consideration and/or search.

Continuation of 11. does NOT place the application in condition for allowance because:

Arguments rely on amended limitations that change the scope of the finally rejected claims and therefore require additional consideration and/or search.

Arguments regarding previously presented limitations and responses are as follows:

Applicant argues that depending claims 2 and 15 in the finally rejected claims recited tungsten carbide. Examiner's response is that although tungsten carbide was recited, the limitation "consisting essentially of tungsten carbide" changes the scope, since "consisting essentially of" is a new limitation.

Applicant argues that the Ametek tech brief does not suggest the use of the Sealvar formulation as a binder material. Examiner's response is that the Ametek tech brief is cited as evidence of the properties of the Sealvar formulation used in Fang as discussed on p. 4 of the 10/24/2006 Office action.

Applicant argues that the statement in the '125 patent comparing the inventive alloys with conventional cobalt matrix teaches away from adding Mn to a binder alloy that includes Co. Examiner's response is that while '125 compares the inventive Fe-Ni-C alloys to 100% Co binder phase (e.g. table 1 p. 4), the alloy of GB '654 is not 100% Co, but rather is an iron-nickel based alloy that contains carbon and between 5 to 15% Co as discussed on p. 8 of the 10/24/2006 Office action. The results of the comparison in '125 to a 100% Co binder are therefore not relevant to the binder in GB '654 which is an iron based binder containing Ni, Co and C as alloying elements.

Applicant argues that there is nothing in the '125 patent that suggest the benefits gained by using Mn in forming the metallic alloy of the '125 patent would be present when Mn was used with a Co containing binder material. Examiner's response is that the alloys disclosed by '125 are Fe based alloys with Ni and C alloying elements. The alloy disclosed by GB '654 is also a Fe based alloy containing Ni and C. Since the '125 patent teaches the benefits of Mn addition to a Fe alloy containing Ni and C, one of ordinary skill in the art would have reasonable expectation of success in adding Mn to the alloy of GB '654.

Applicant argues that the '301 patent, Liang or Heinrich does not disclose the claimed composition. Examiner's response is that the '301 patent (GB '301) or Liang is cited as a secondary reference teaching the use of cermets containing C, Ni and/or Fe binder as cutting inserts as discussed on p. 11 of the 10/24/2006 Office action; Heinrich is cited as a secondary reference teaching the use of TiC-TiCN as discussed on pp. 8 and 15 of the 10/24/2006 Office action.

KAM
07/05/2007

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